

Safety Data Sheet

according to Regulation (EC) No 1907/2006

RHEOSOL-Maschinenspül FC universal

Revision date: 19.09.2019

Product code: 22501

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P321 Specific treatment (see gesonderte Anmerkungen on this label).

Additional advice on labelling

Classification according to Regulation (EC) No 1272/2008 [CLP]

2.3. Other hazards

Contact with acids liberates toxic gas. Hydrogen chloride (HCl)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Alkalis (alkalis).

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1310-58-3	caustic potash, potassium hydroxide			5 - < 10 %
	215-181-3		01-2119487136-33	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A; H290 H302 H314			
1310-73-2	Sodium hydroxide; caustic soda			1 - < 5 %
	215-185-5		01-2119457892-27	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			
9003-04-7	sodium polyacrylate			1 - < 5 %
	Eye Irrit. 2, Aquatic Chronic 3; H319 H412			
7681-52-9	Sodium hypochlorite, solution 12 % Cl active			1 - < 5 %
	231-668-3		01-7011001	
	Met. Corr. 1, Skin Corr. 1B, STOT SE 3, Aquatic Acute 1 (M-Factor = 10); H290 H314 H335 H400 EUH031			

Full text of H and EUH statements: see section 16.

Labelling for contents according to Regulation (EC) No 648/2004

5 % - < 15 % phosphates, < 5 % polycarboxylates, < 5 % phosphonates.

Further Information

Note: The danger characteristics and R-Phrases refer to the properties of the neat substances.

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of inhaling spray mist, consult a physician.

Provide fresh air.

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After contact with skin

After contact with skin, wash immediately with plenty of water and soap.
Do not wash off with acidic cleaning agents.
In case of skin irritation, consult a physician.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water.
Let water be drunken in little sips (dilution effect). Seek medical attention if problems persist.

4.2. Most important symptoms and effects, both acute and delayed

Prolonged and repeated inhalation of decomposition products may cause a pulmonary oedema.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

The product itself does not burn.
waterspray, foam, CO₂, powder

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO₂). Chlorine (Cl₂). Hydrogen chloride (HCl).

5.3. Advice for firefighters

Use appropriate respiratory protection. In case of fire and/or explosion do not breathe fumes.
In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protection equipment.
Provide adequate ventilation.
Special danger of slipping by leaking/spilling product.
Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Take up mechanically. Suitable material for taking up:
Universal binding agent.
Treat the recovered material as prescribed in the section on waste disposal.
Wash with plenty of water.
Wash with plenty of water.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Advice on safe handling

- Avoid contact with skin and eyes.
- Do not breathe gas/fumes/vapour/spray.
- When using do not eat, drink or smoke.
- Warning! Do not use together with other products. May release dangerous gases (chlorine).
- Do not keep the container sealed.

Advice on protection against fire and explosion

- No special measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Keep container tightly closed in a cool, well-ventilated place.
- Protect against:
 - UV-radiation/sunlight.
 - frost.
- Unsuitable materials for Container: metal.

Advice on storage compatibility

- Do not store together with:
 - Reducing agents.
 - Zinc.
 - iron.
 - amines.
 - Aluminium.
 - Acid.
 - Oxidizing agents.

Further information on storage conditions

- Keep only in the original container.
- Recommended storage temperature: 5-30°C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
1310-58-3	Potassium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL
1310-73-2	Sodium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
1310-73-2	Sodium hydroxide; caustic soda		
Worker DNEL, long-term	inhalation	local	1 mg/m ³
Consumer DNEL, long-term	inhalation	local	1 mg/m ³
7681-52-9	Sodium hypochlorite, solution 12 % Cl active		
Worker DNEL, acute	inhalation	local	3,1 mg/m ³
Worker DNEL, acute	inhalation	systemic	3,1 mg/m ³
Worker DNEL, long-term	inhalation	local	1,55 mg/m ³
Worker DNEL, long-term	inhalation	systemic	1,55 mg/m ³
Consumer DNEL, long-term	inhalation	local	1,55 mg/m ³
Consumer DNEL, long-term	inhalation	systemic	1,55 mg/m ³
Consumer DNEL, long-term	oral	systemic	0,26 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
7681-52-9	Sodium hypochlorite, solution 12 % Cl active	
Freshwater	0,00021 mg/l	
Freshwater (intermittent releases)	0,00026 mg/kg	
Marine water	0,000042 mg/l	
Secondary poisoning	11,1 mg/kg	
Micro-organisms in sewage treatment plants (STP)	0,03 mg/l	

Additional advice on limit values

Refer to chapter 7. Additional information about structure of technical plants: Avoid leakages in dosage systems

8.2. Exposure controls

Appropriate engineering controls

Avoid leakages in dosage systems

Protective and hygiene measures

When using do not eat, drink or smoke.

Keep away from food, drink and animal feedingstuffs.

Wash hands before breaks and after work.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Wear suitable gloves.

penetration time (maximum wearing period): 8 h

Suitable material:

NR (Natural rubber (Caoutchouc), Natural latex). 0,5 mm

CR (polychloroprenes, Chloroprene rubber). 0,5 mm

NBR (Nitrile rubber). 0,35 mm

FKM (fluororubber). 0,4 mm

PVC (Polyvinyl chloride). 0,5 mm

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Before using check leak tightness / impermeability.

Skin protection

Protective apron.

Respiratory protection

Respiratory protection necessary at:
aerosol or mist generation.
insufficient ventilation.
Handling larger quantities.

Environmental exposure controls

Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	light scent of chlorine
pH-Value:	>13

Changes in the physical state

Melting point:	non-applicable
Initial boiling point and boiling range:	99,97 °C
Sublimation point:	non-applicable
Softening point:	non-applicable
Pour point:	non-applicable
Flash point:	non-applicable
Sustaining combustion:	No data available

Flammability

Solid:	non-applicable
Gas:	non-applicable
Lower explosion limits:	non-applicable
Upper explosion limits:	non-applicable
Vapour pressure: (at 20 °C)	23,37 hPa
Vapour pressure: (at 50 °C)	123,3 hPa
Density (at 20 °C):	1,3 g/cm ³
Water solubility:	complete miscible

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.
Formation of: Chlorine Hydrogen chloride (HCl)

10.4. Conditions to avoid

Do not allow contact to acid, product may release gas (Cl₂)

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Keep away from heat. Protect from sunlight. Store in a well-ventilated place.

10.5. Incompatible materials

Reducing agents.
Zinc.
iron.
amines.
Aluminium.
Acid.

10.6. Hazardous decomposition products

In case of warming: Decomposition under formation of: chlorine.

Further information

Exothermic reactions with: Acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-58-3	caustic potash, potassium hydroxide				
	oral	LD50 365 mg/kg	Rat		
1310-73-2	Sodium hydroxide; caustic soda				
	oral	LD50 325 mg/kg	Rabbit		
9003-04-7	sodium polyacrylate				
	oral	LD50 >5000 mg/kg	@N11.P0000002		
7681-52-9	Sodium hypochlorite, solution 12 % Cl active				
	oral	LD50 8200 mg/kg	Rat	IUCLID	
	dermal	LD50 >10000 mg/kg	Rabbit		
	inhalative (1 h) vapour	LC50 10,5 mg/l	Rat		

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

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Practical experience

Observations relevant to classification

Diluted solutions may have a weaker effect, depending on the concentration.

SECTION 12: Ecological information

12.1. Toxicity

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge.

due to the alkaline character of the product, usually, it has to be neutralized before contaminated effluents are introduced into the waste water treatment system.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
1310-73-2	Sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50 mg/l	45,4	96 h	Oncorhynchus mykiss	
	Acute crustacea toxicity	EC50 mg/l	40,4	48 h	Ceriodaphnia sp.	
9003-04-7	sodium polyacrylate					
	Acute fish toxicity	LC50 mg/l	>100	96 h	Oncorhynchus mykiss	
	Acute algae toxicity	ErC50 mg/l	10-100	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna	
7681-52-9	Sodium hypochlorite, solution 12 % Cl active					
	Acute fish toxicity	LC50 mg/l	0,06	96 h	Salmo gairdneri	
	Acute algae toxicity	ErC50 mg/l	0,141		Daphnia magna	

12.2. Persistence and degradability

The product contains organically bound halogen as per formulation. It may increase the AOX value when discharged from treatment plants or into natural waters.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1310-73-2	Sodium hydroxide; caustic soda	-3,88
7681-52-9	Sodium hypochlorite, solution 12 % Cl active	-3,42

12.4. Mobility in soil

There are no data available on the preparation/mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. Hand over to officially registered waste disposal company.

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Waste disposal number of waste from residues/unused products

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

Waste disposal number of used product

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

Contaminated packaging

Completely emptied packings can be re-cycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 1719

14.2. UN proper shipping name:

CAUSTIC ALKALI LIQUID, N.O.S.
(potassium hydroxide, Sodium hydroxide; caustic soda, Sodium hypochlorite, solution 12 % Cl active)

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

Hazard label:

8



Classification code:

C5

Special Provisions:

274

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

80

Tunnel restriction code:

E

Inland waterways transport (ADN)

14.1. UN number:

UN 1719

14.2. UN proper shipping name:

CAUSTIC ALKALI LIQUID, N.O.S.
(potassium hydroxide, Sodium hydroxide; caustic soda, Sodium hypochlorite, solution 12 % Cl active)

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

Hazard label:

8



Classification code:

C5

Special Provisions:

274

Limited quantity:

5 L

Excepted quantity:

E1

Marine transport (IMDG)

14.1. UN number:

UN 1719

14.2. UN proper shipping name:

CAUSTIC ALKALI LIQUID, N.O.S.

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

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Hazard label: 8



Special Provisions: 223, 274
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-B

Other applicable information (marine transport)
 : 223

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1719

14.2. UN proper shipping name: CAUSTIC ALKALI LIQUID, N.O.S.
 (potassium hydroxide, Sodium hydroxide; caustic soda, Sodium hypochlorite, solution 12 % Cl active)

14.3. Transport hazard class(es): 8

14.4. Packing group: III

Hazard label: 8



Special Provisions: A3 A803
 Limited quantity Passenger: 1 L
 Passenger LQ: Y841
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 852
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 856
 IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)
 Danger: Y809
 : A3

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No special handling instructions are necessary.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not classified for this transport way.

Other applicable information

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

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Sodium hypochlorite, solution 12 % Cl active

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the

International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

P: Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

Further Information

Notice the directions for use on the label.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)